

ACCESSION NR: AP4041684

tested. The resins filled with channel black were the least stable to prolonged aging at either temperature. The combination of 2 different blacks (furnace, lamp or thermal) improved the resistance of the resins to thermal aging at 85 and 100C as indicated by higher tensile strength and elongation; these values were much lower when the temperature was increased to 110C. There seemed to be no correlation between the amount of volatiles at the different temperatures and the mechanical properties of the resin. Examination of the effect of a combination of channel black, mercaptobenzthiazole and thiuram on the physical mechanical properties of insulating type resins showed that addition of 5-10 wt. parts of channel black and 3 wt. parts of Captax increased the strength of the vulcanizates (from 47-67 kgs/cm²) without changing their electrical insulating properties. Orig. art. has: 1 figure and 4 tables.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskij institut im. F. E. Dzerzhinskogo Kafedra tekhnologii reziny* (Dnepropetrovsk Chemical Technological Institute Department of Rubber Technology)

SUBMITTED: 16Mar63

ENCL: 00

Card 2/3

ACCESSION NR: AP4041684

SUB CODE: MT

NO REF SOV: 005

OTHER: 000

Card 3/3

GREBENNIKOV, D.A., gornyy inzh.; ZYKOV, V.A.; GUSHCHIN, V.V.;
DEMIDENKO, I.E.; RODIONOV, G.V., prof., doktor tekhn.nauk

Discussion of I.A. B. Kal'nitskii and S.P. Vasil'evskii's article
"Problems in the automation of stoping equipment in the mining
industry." Gor. zhur. no.10:59-64 0 '61. (MIRA 15:2)

1. Glavnyy mekhanik kombinata "Apatit" (for Zykov).
 2. Glavnyy inzh. kombinata "Apatit" (for Gushchin).
 3. Upravlyayushchiy rudnikom Odra-Bash Kuznetskogo metallurgicheskogo kombinata (for Demidenko).
 4. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Rodionov).
- (Mining machinery)

KOLOBENIN, V.N.; UTLENKO, Ye.V.; DEMIDENKO, I.A.; BLOKH, G.A.

Use of carbons blacks in cable rubbers. Izv.vys.ucheb.zav.; khim.
i khim.tekh. 7 no.2:307-312 '64. (MIRA 18:4)

1. Dnepropetrovskiy khimiko-tekhnologicheskoy institut im. F.E.
Dzerzhinskogo, kafedra tekhnologii reziny.

METALLURGICAL LITERATURE CLASSIFICATION																									
1. SUBJECT													2. AUTHOR												
3. TITLE													4. ABSTRACT												
<p>15</p> <p>blast-furnace slag as fertilizer. I. G. Demblenko 1944. <i>Kul'met</i> 1944, No. 10, Pt. 4, <i>Khim. Refert. Zh.</i> 4, No. 7-8, 65-6 (1941).-- Blast-furnace slag was used as an inexpensive source of Ca for the improvement of the volcanic and chestnut soils of the Ukraine. The physical properties of the soil improved and the yields of barley and cotton increased. Blast-furnace slag can be added in fallow in amts. of 4.5-6.0 tons/ha. to the volcanic and chestnut-volcanic soils and 6.5 tons/ha. to the dark chest- nut, weakly volcanic and decumal. soils. W. R. Henn</p>																									

DEMIDENKO, I. G.

Defecation sludge as a valuable source of lime. I. G.
Demidenko and M. D. Kersbus. *Udobrenie i Urozhai* 1,
No. 9, 38-41 (1958).—The sludge of the beet-sugar industry is
a good source of lime for neutralizing acid soils. I. S. Ioffe

2

J

Country : USSR
 Category : Soil Science. Mineral Fertilizers.
 53405
 Abs. Jour. :
 Author : Kondratenko, Ye.S.; ~~Demiidenko, I.G.~~
 Institut. : --
 Title : The Results of Production Trials of Liquid Nitro-
 gen Fertilizers in the Ukraine
 Orig. Pub. : Udobreniye i urozhay, 1957, No.6, 16-23
 Abstract : Experiments conducted in 1956 at the kolkhozes
 and sovkhoses of Dnepropetrovskaya and Cherkas-
 skaya Oblasts on chernozem soils, and on turf-
 podzolic soil in Kiyevskaya Oblast' have shown
 that liquid ammonia (82% N) and ammoniate B
 (28-32% N) obtained by dissolving ammonium nit-
 rate and calcium nitrate in ammonia water, were
 not less effective than ammonium nitrate in
 producing various agricultural crops. Records on
 the economic efficiency of the fertilizers on
 sugar beets indicate a difference of 419 rubles
 Card: 1/2

DEMIDENKO, I.G. [Demydenko, I.H.]; MINEVICH, S.M. [Minevych, S.M.], otv.
red.; FAL'KO, Yu.G. [Fal'ko, Yu.H.], red.; MATVIICHUK, O.A.,
tekhn. red.

[Recent developments in the production and use of fertilizers]
Nove u vyhotovlenii i zastosuvanni dobryv. Kyiv, 1961. (Tovarystvo
dlia poshyrennia politychnykh i naukovykh znan' Ukrain's'koï RSR. Ser.5,
no.6) (MIRA 14:9)

(Fertilizers and manures)

DEMIDENKO, I.G.; PROKOPENKO, I.I.

Using liquid ammonia fertilizers in the Ukraine. Zemledelie 23
no.1:54-59 Ja '61. (MIRA 13:12)

1. Ministerstvo sel'skogo khozyaystva USSR (for Demidenko).
2. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Prokopenko).
(Ammonia)

POLISHVAYKO, I.Z.; DEMIDENKO, I.G.

Practices of collective farms in the use of fertilizers. Zemledelie
27 no.11:55-58 N '65. (MIRA 18:10)

1. Nachal'nik Upravleniya khimizatsii Ministerstva sel'skogo
khozyaystva UkrSSR (for Polishvayko). - 2. Glavnyy agronom
Upravleniya khimizatsii Ministerstva sel'skogo khozyaystva
UkrSSR (for Demidenko).

ACC NR: AP6001973

(A,N)

SOURCE CODE: UR/0349/65/000/011/0055/0058

AUTHOR: Polishvayko, I. Z. (Chief); Demidenko, I. G. (Chief agriculturist)

ORG: Applied Chemistry Board MSKh Ukr SSR (Upravleniya khimizatsii MSKh Ukr SSR)

TITLE: Experience of kolkhozes with fertilizers

SOURCE: Zemledeliye, no. 11, 1965, 55-58

TOPIC TAGS: fertilizer, agriculture crop

ABSTRACT: Ukraine SSR, which has considerable peat resources, plans to increase its yearly production of organic fertilizers to 180 to 200 million tons. In 1965 the kolkhozes and sovkhoses of the Ukraine received 5.5 million tons of mineral fertilizers representing an increase of 800,000 tons over the previous year. In Ukraine's forest zone grain, industrial and other crops are grown. In the forest steppe zone sugar beet, hemp, and vegetable crops are grown in addition to grain. In the steppe zone, where the precipitation is much less than in the forest and forest steppe zones, winter wheat, sunflower, corn and melon crops are grown. The greater part of the mineral and organic fertilizers is introduced during fall plowing. All crop yields have increased with the use of fertilizers. With the application of $N_{40}P_{40}K_{40}$, winter wheat crop production has increased by 4 to 6 centners/hectare in the forest zone, by 3 to 5 centners/hectare in the forest steppe zone, and by 4

Card 1/2

UDC: 631.8

REC NR: AP6004973

centners/hectare in the steppe zone. Kolkhoz im. Zhdanov (L'vov Oblast) and kolkhoz im. Parkhomenko (Ternopol'sk Oblast) are cited as models in the use of fertilizers and their crop production figures are given. Orig. art. has: 1 table.

SUB CODE: 06, 02/ SUM DATE: none

Card 2/2

9.4177 (1035, 1138)

32527
S/051/61/011/006/008/012
E039/E385

AUTHORS: Borisov, M.D. (Deceased), Demidenko, I.I. and
Padalka, V.G.

TITLE: The absolute concentration of electrons in the forbidden
zone from the transmission boundary of thin films of
aluminium in the vacuum ultraviolet region

PERIODICAL: Optika i spektroskopiya, v.11, no.6, 1961, 769-771

TEXT: Previous studies of the optical properties of metals
have been mainly in the infrared, visible and ultraviolet regions.
It has been shown that films of alkali metals, opaque to visible
light, were transparent in the ultraviolet region. The trans-
mission boundary shifts to shorter wavelengths with a reduction
in atomic weight: Cb - 4400 Å, Rb - 3600 Å, K - 3150 Å,
Na - 2100 Å, Li - 2050 Å. For wavelengths shorter than the
appropriate transmission boundary the alkali metals acquire the
properties of a transparent medium. In the present work the
transmission boundary for thin films of aluminium is determined
and the concentration of electrons in the forbidden zone calculated.
The radiation source is described in detail and consists

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The absolute concentration

32527
S/051/61/011/006/008/012
E039/E385

essentially of a high-frequency discharge between aluminium electrodes enclosed in a quartz capillary tube. The power supply is a 3.1 microfarad condenser charged to ~ 10 kV. The maximum current on the first oscillation is ~ 100 kA, producing a current density of ~ 20 kA/mm². The method of producing the aluminium films is described fully. Aluminium is evaporated from a tungsten filament onto a glass plate previously coated with a thin layer of sodium chloride. By dissolving this sodium chloride layer the aluminium film can be removed easily from the plate. The thickness of the film was measured interferometrically and shown to be $\sim 1\ 000$ Å. In visible light such films were completely opaque. Transmission spectra of these films were obtained in the region 200 - 2 000 Å and it was shown that for wavelengths longer than ~ 800 Å the films were opaque, while for wavelengths shorter than ~ 800 Å they were transparent. It has been shown that when the frequency of the light ω is greater than the plasma frequency Ω , the electron plasma in metals is capable of sustaining electromagnetic waves and hence it will be

Card 2/4

32527

S/051/61/011/006/008/012
EO59/E385

The absolute concentration

optically transparent. If $\omega < \Omega$ the metal is opaque. The concentration of electrons in the forbidden zone N is related to the transmission boundary λ_0 by the expression:

$$N = \frac{\pi c^2 m^{*2}}{e^2 \lambda_0^2} \quad (2)$$

where m^* and e are the effective mass and the charge of the electron.

Assuming $m^* = m = 9.1 \times 10^{-28}$ g, for $\lambda_0 = 800 \text{ \AA}$, then

$N = 1.74 \times 10^{23} \text{ cm}^{-3}$. A value for N obtained by G.P. Motulevich and associates (Ref. 7: ZhETF, 38, 51, 1960) in the infrared region of the spectrum is less than half the above value. There are 1 figure and 7 references: 2 Soviet-bloc and 5 non-Soviet-bloc. The four latest English-language references mentioned are: Ref. 2: R.W. Wood, C. Lukens, Phys. Rev., 54, 332, 1938; Ref. 3: G. Sabine, Phys. Rev.,

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32527

S/051/61/011/006/008/012

E059/E385

The absolute concentration

55, 1064, 1939; Ref. 4: W.S. Walker, O.P. Rustgi, G.L. Weissler
J. Opt. Soc. Amer., 49, 471, 1959, Ref. 6: D. Bohm, D. Pines
Phys. Rev., 82, 625, 1951; 85, 338, 1952; 92, 609, 1953

SUBMITTED: April 27, 1961

Card 4/4

DEMIDENKO, I.I. [Demydenko, I.I.]; MITINA, N.I.; PADALKA, V.G. [Padalka, V.H.]

Use of thermocouples in studying plasma clots. Ukr. fiz. zhur. 8
no.1:61-64 Ja '63. (MIRA 16:5)

1. Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov.
(Plasma (Ionized gases)) (Thermocouples)

ACCESSION NR: AT4036064

S/2781/63/000/003/0228/0231

AUTHORS: Demidenko, I. I.; Mitina, N. I.; Padalka, V. G.

TITLE: Investigation of plasmoids with the aid of thermocouples

SOURCE: Konferentsiya po fizike plazmy* i problemam upravlyayemogo termoyadernogo sinteza. 3d, Kharkov, 1962. Fizika plazmy* i problemy* upravlyayemogo termoyadernogo sinteza (Plasma physics and problems of controlled thermonuclear synthesis); doklady* konferentsii, no. 3, Kiev, Izd-vo AN UkrSSR, 1963, 228-231

TOPIC TAGS: plasma source, plasmoid, plasmoid acceleration, plasma temperature, plasma magnetic field interaction, thermocouple

ABSTRACT: The preparation of a bismuth-silver thermocouple for plasma research is described. The thermocouples were produced free-standing by evaporation in vacuum on a heated glass substrate and were used to investigate plasmoids from a Bostick source. The method

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ACCESSION NR: AT4036064

of separating the thermocouple from the substrate is described. The relative distribution of the energy of the plasmoids as a function of the distance from the source was measured with the thermocouples. The motion of the plasmoid past the thermocouple charged the latter to a certain negative potential which could be monitored on an oscilloscope. The passage of plasmoids in a longitudinal magnetic field (the field intensity approximately 0.06 Tesla) was also investigated with the thermocouples. The velocity of the plasmoid could be determined from the delay in the thermocouple signal, and was found to be $(1-1.5) \times 10^5$ m/sec, which is considered by the authors to be an overestimate. It is concluded that the described thermocouples are sufficiently sensitive and can be used to investigate the diffusion of plasma transverse to a magnetic field. Orig. art. has: 7 figures.

ASSOCIATION: None

Card 2/4

ACCESSION NR: AT4036064

SUBMITTED: 00

DATE ACQ: 21May64

ENCL: 01

SUB CODE: ME

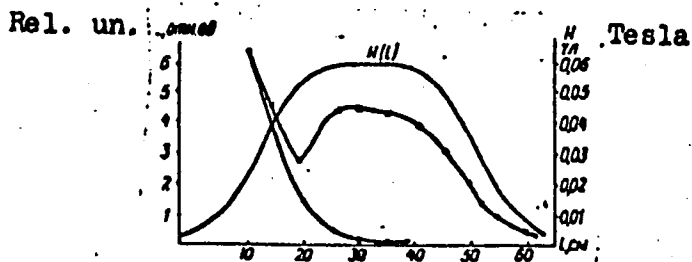
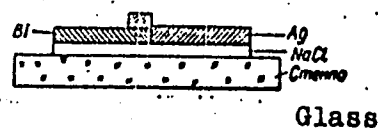
NR REF SOV: 002

OTHER: 001

Card 3/4

ACCESSION NR: AT4036064

ENCLOSURE: 01



Left - deposition of thermocouple on glass substrate (the melting of the salt causes the thermocouple to separate from the glass)

Right - relative distribution of plasmoid energy as a function of the distance from the source. $H(L)$ - magnetic field distribution, crosses - in presence of magnetic field, dots - without field.

Card 4/4

ACCESSION NR: AT4036065

S/2781/63/000/003/0232/0236

AUTHORS: Sinel'nikov, K. D.; Safronov, B. G.; Padalka, V. G.; Dami-
denko, I. I.

TITLE: Visual study of plasmoids

SOURCE: Konferentsiya po fizike plazmy* i problemam upravlyayemogo
termoyadernogo sinteza. 3d, Kharkov, 1962. Fizika plazmy* i problemy*
upravlyayemogo termoyadernogo sinteza (Plasma physics and problems
of controlled thermonuclear synthesis); doklady* konferentsii, no. 3,
Kiev, Izd-vo AN UkrSSR, 1963, 232-236

TOPIC TAGS: plasmoid, plasmoid acceleration, toroidal drift insta-
bility, plasma research, plasma magnetic field interaction, plasma
diffusion

ABSTRACT: Apparatus is described for visual observation of the shape
of a plasmoid moving in electric and magnetic fields. The apparatus

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ACCESSION NR: AT4036065

described can be used successfully even for plasmoids with relatively low ion concentration (10^8 -- 10^9 cm⁻³) which are difficult to investigate by their waves (for example, high speed photography and spectroscopy). The instrument (called "plasmoscope" by A. V. Zharinov) is based on accelerating the plasma electrons between grids and causing them to induce glow of a luminor on a flat glass. The techniques required for the preparation of the plasmoscopes are described. The apparatus was used to investigate the entry and passage of a plasmoid in a longitudinal homogeneous magnetic field and in a field of toroidal configuration, using a source of the Bostick type and a discharge from 1 microfarad capacitor at 4 kV. The plasmoid velocity was $(7--8) \times 10^4$ m/sec. The broadening of the plasmoid in the homogeneous-field region may be due to differences in the angle at which the plasmoid enters the gradient field near the solenoid. In the case of toroidal configuration, it is assumed that the magnetic field compensates for the plasma polarization. The length of the toroidal part of the field must not exceed

Card 2/4

ACCESSION NR: AT4036065

the length of the plasmoid for such a model, and as the plasma moves along the helical solenoid the plasmoid passes through it only so long as its length exceeds the length of the helix. Otherwise a strong drift of the plasmoid is observed and the plasma does not get through. An experiment was performed to ascertain the effect to which the toroidal configuration can clear the plasmoid of the "tail" of heavy ions. The results indicate the feasibility of such a cleaning method. Orig. art. has: 6 figures.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 21May64

ENCL: 01

SUB CODE: ME

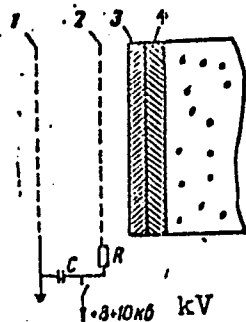
NR REF SOV: 001

OTHER: 001

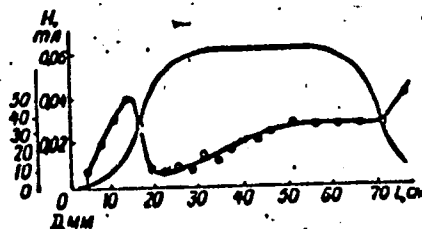
Card 3/4

ACCESSION NR: AT4036065

ENCLOSURE: 01



Tesla



Left - diagram of plasmoscope. 1 - grounded dense copper grid, 2 - accelerating grid, 3 - aluminum layer, 4 - luminor
Right - variation of plasmoid diameter with distance from source (lower curve) and magnetic field distribution (upper curve)

Card 4/4

SINEL'NIKOV, K.D.; SAFRONOV, B.G.; PADALKA, V.G.; DEMIDENKO, I.I.

Visual study of plasma clots. Zhur. tekhn. fiz. 33 no.9:
1055-1058 S '63. (MIRA 16:11)

ACCESSION NR: AP4041992

S/0057/64/034/007/1183/1190

AUTHOR: Demidenko, I.I.; Padalka, V.G.; Safronov, B.G.; Sinel'nikov, K.D.

TITLE: Interaction of plasma bursts with a transverse magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.7, 1964, 1183-1190

TOPIC TAGS: plasma, plasma-magnetic field interaction, plasmoid, plasma source

ABSTRACT: The behavior of plasma bursts on meeting a transverse magnetic field was investigated experimentally. The plasma bursts were produced by 15-kv discharges of a 3-microfarad capacitor bank through a conical plasma gun with plastic walls, and traveled at 2.3×10^6 cm/sec down an 8-cm-diameter copper drift tube. At 70 cm from the plasma gun the drift tube intersected, at right angles, a second copper tube 10 cm in diameter, in which an approximately uniform axial magnetic field of a strength up to 725 oe was maintained with a solenoid. The behavior of the plasmas was observed with magnetic probes, a shielded electric probe, and a "plasmascop" (a fluorescent screen which is photographed when the plasma impinges upon it). Mass spectroscopic analyses of the plasmas were also performed. When a plasma burst entered the transverse magnetic field, a portion of it passed through the field in

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ACCESSION NR: AP4041992

the original direction with reduced velocity, and a portion of it was "captured" by the field and traveled down the side tube in both directions along the lines of force. The captured plasma moved virtually parallel to the lines of force (the shadow image of a grid of 8-mm-diameter holes on 8-mm centers was quite sharp at 30 cm) and it traveled with a considerably greater velocity than the original plasma burst. The velocity of the captured plasma increased with increasing magnetic field, and amounted to 6.3×10^6 cm/sec in a field of 450 oe. The portion of the plasma traversing the magnetic field suffered a displacement perpendicular both to the field and to the direction of motion. It is suggested that this displacement is due to drift resulting from a longitudinal polarization of the plasma. The plasma consisted chiefly of H^+ , C^+ , O^+ , Fe^+ , C^{2+} , O^{2+} , and O^{3+} . Most of the heavy ions traversed the transverse field, and only H^+ and C^+ were found in the captured portion. The mechanism of the capture and acceleration of the plasma by the transverse magnetic field is discussed very briefly; it is not understood. The authors assert that a pure hydrogen plasma is much more easily captured by a transverse magnetic field than the impure plasmas investigated in the present work, and they call for further investigation of the role of the heavy ions in this process. Orig.art.has: 10 figures and 2 tables.

Card

2/3

ACCESSION NR: AP4041992

ASSOCIATION: none

SUBMITTED: 22Jul63

ATD PRESS: 3081

ENCL: 00

SUB CODE: ME

NR REF SOW: 003

OTHER:002

Card 3/3

L 6728-65 EMT(j)/EWG(k)/EWI(m)/EPA(sp)-2/EPF(c)/EPA(w)-2/EEC(t)/T/EEC(b)-2/
 EWP(q)/EWP(b)/EWA(m)-2 Pf-l/Pi-l/Po-l/Pr-l/Pz-6/Pab-2h IJP(c)/AEDC(b)/ASD(p)-3
 RAIM(a)/SSD/AFWL/AFETR/ESD(gs)/ESD(t) AT/JD/HM
 ACCESSION NR: AP4044877 S/0020/64/157/006/1335/1337
 117
 115

AUTHORS: Demidenko, I. I.; Padalka, V. G.; Safronov, B. G.; Sine-
 nikov, K. D. (Academician AN UkrSSR)

TITLE: Energy spectra of a plasma interaction with a transverse
 magnetic field //

SOURCE: AN SSSR. Doklady*, v. 157, no. 6, 1964, 1335-1337

TOPIC TAGS: plasma source, plasma magnetic field, plasma trapping,
 plasma charged particle distribution, plasma axial inhomogeneity,
 plasmoid ionic component

ABSTRACT: This is a continuation of earlier tests by the authors
 (ZhTF v. 34, No. 7, 43, 1964), and its purpose is a detailed analy-
 sis of the ionic component of a plasma produced by a conical source
 and traveling in a magnetic field. The experimental setup for study-
 ing the interaction between plasmoids and a transverse magnetic

Cord 1/3

L 6728-65

ACCESSION NR: AP4044877

field was the same as used by the authors before, and the mass analyzer employed was that described by A. A. Kalmykov et al (pribyor i tekhn. eksp. No. 5, 142, 1963). The results indicate that the ability of the plasma ions to penetrate through the transverse magnetic field increases with increasing m/Z (m -- ion mass, Z -- charge) and with decreasing ion energy. The plasma captured by the magnetic field contains much more hydrogen than the plasma ejected from the source. With increasing intensity of the magnetic field, the energy spectrum of the hydrogen ions of the plasma passing through the field shifts towards lower energies, whereas the energy spectrum of the protons of a plasma moving along the magnetic field shifts towards the higher energies. The results suggest that the density of the leading front of the plasma, where the higher-energy hydrogen ions are situated, is not high enough so that when the plasma enters the transverse magnetic field the front part of the plasmoid becomes detached. There is no broadening of the plasma pulses after passing through the magnetic field, and the perpendicu-

Card 2/3

L 6728-65

ACCESSION NR: AP4044877

lar ion velocity is very rapidly transformed into longitudinal velocity. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut Akademii nauk UkrSSR
(Physicotechnical Institute, Academy of Sciences, UkrSSR)

SUBMITTED: 21Feb64

ENCL: 00

SUB CODE: ME

NR REF SOV: 003

OTHER: 001

Card 3/3

I 26966-65 ZWT(1)/EPA(sp)-2/T/EEC(t)/EPA(w)-2/ZWA(m)-2 Pa-6/Po-4/Pab-10/P1-4
 LJP(c) AT
 ACCESSION NR: APS003252 S/0057/65/035/001/0154/0156

AUTHOR: Demidenko, I. I. / Lomino, N. S. / Padalka, V. G. / Safronov, B. G. / Sinel'nikov, K. D.

TITLE: On possible development of instabilities in a plasma captured by a transverse magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.1, 1965, 154-156

TOPIC TAGS: plasma, plasma instability, transverse magnetic field, longitudinal magnetic field

ABSTRACT: The development of instabilities in plasma bursts trapped by a transverse magnetic field and traveling parallel to it were investigated. The apparatus and the peculiarities of the capture and propagation of the plasma bursts have been previously described by four of the present authors (ZhTF 34,1183,1964). In the present experiments the plasma bursts passed through a 1.5 cm diameter circular aperture in a screen located 30 cm from the point of capture and were observed at various distances from the screen with a "plasmascop". When the screen was of dielectric material, or when it was of metal but floating, a tongue emerged from the more dense side of the plasma, grew, and reached the wall of the chamber after the plas-

Card 1/2

L 26966-65

ACCESSION NR: AP5003252

na burst had traveled some 60 cm from the screen. This instability is assumed to be of the Rayleigh-Taylor type and due to the rotation of the plasma, its inhomogeneity, and the presence within it of a net negative charge. When the screen was of metal and grounded, the development of this instability was almost entirely suppressed. Experiments were also performed with a screen containing a 4 mm wide slot instead of a circular aperture. In this case the instability did not develop. The failure of flute instability to develop in the plasma sheets that passed through the slot is discussed briefly. Orig.art.has: 4 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut AN UkrSSR, Khar'kov (Physicotechnical Institute, AN UkrSSR)

SUBMITTED: 14 Aug84

ENCL: 00

SUB CODE: MS,EM

NR REF SOV: 004

OTHER: 005

Card 2/2

L 52010-65 EFF(x)-2/EPA(w)-2/EWT(1)/EWQ(m) P1-4/P0-4/Pz-6/Fab-10 LJP(c) AT

ACCESSION NR: AP5012046

UR/0057/65/035/005/0823/0826

AUTHOR: Demidenko, I.I.; Lomino, M.S.; Padalka, V.G.; Safronov, B.G.; Sinel'nikov, K.D.

TITLE: Investigation of some properties of a plasma captured by a transverse magnetic field 71

SOURCE: Zhurnal teoreticheskoy fiziki, v. 35, no. 5, 1965, 823-826 51
50
B

TOPIC TAGS: plasma trapping, plasma magnetic field, plasma polarization, plasma injection

ABSTRACT: The authors have previously found (ZhTF, 34, 43, 1964; DAN SSR, 157, 1335, 1964) that a portion of the plasma injected into a transverse magnetic field is captured by the field and moves parallel to it. They have continued their investigation of this phenomenon (which is not understood) with an apparatus similar to that previously employed, but larger. In the present apparatus the longitudinal magnetic field is maintained in a 12 cm diameter, 300 cm long drift tube; with the plasma transversely injected at the center of the drift tube, the motion of the captured plasma could be followed for 120 cm. The polarization of the captured plasma was observed with probes. After a decrease of 20 to 50% in

Card 1/2

L 52010-65

ACCESSION NR: AF5012046

the first 30 or 40 cm, the polarization decreased only very slowly with distance from the injection point. The expected drift of the captured plasma in the crossed fields (the electric field due to polarization and the applied magnetic field) was observed with the aid of a slitted plastic diaphragm and a "plasma-scope" (L.I.Yelizarov and A.V.Kharinov, Nucl. Fus., Suppl., 2, 699, 1962). The effect of shorting out the plasma polarization with a copper disk was investigated; this was found, in accord with the findings of D.A.Baker and J.F.Hammel (Phys. Rev. Letters, 8, 157, 1962), to inhibit the transverse motion of the captured plasma. Orig. art. has: 2 formulas and 3 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR, Khar'kov (Physico-technical Institute, AN USSR)

SUBMITTED: 13May64.

ENCL: 00

SUB CODE: ME

NR REF NOV: 004

OTHER: 002

Card 2/2 MB

L 43920-66 EWT(1) IJP(c) GD/AT

ACC NR: ATG020398

(N)

SOURCE CODE: UR/0000/65/000/000/0021/0026

AUTHOR: Demidenko, I. I.; Lomino, M. S.; Padalka, V. G.; Safronov, B. G.; Sinel'-nikov, K. D.

ORG: none

TITLE: Possible occurrence of instabilities in a plasma captured by a transverse magnetic field ✓

SOURCE: AN UkrSSR. Issledovaniye plazmennyykh sgustkov (Study of plasma clusters). Kiev, Naukova dumka, 1965, 21-26

TOPIC TAGS: plasma containment, plasma instability, plasmoid, plasma injection

ABSTRACT: This is a continuation of earlier investigations of plasma captured by a transverse magnetic field (ZhTF, 1964, v. 34, 1183 and elsewhere). Although the conditions in the earlier investigations were such that no instabilities could develop in the plasma, the authors show that such instabilities can develop after the plasmoid passes through a diaphragm which is installed at a sufficiently large distance from the point of injection of the plasma in the magnetic field. At the large distance from the injection point, the plasmoid has a sufficiently large ratio of longitudinal energy to transverse energy, and an appreciable density gradient. The instability begins to develop in the region of maximum plasma density, and the inhomogeneity of the density over the cross section of the plasmoid stimulates the development of the instability. Arguments are presented in favor of classifying this as a

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L 43920-55

ACC NR: AT6020398

Rayleigh-Taylor type of instability which develops in the homogeneous magnetic field as a result of plasma rotation. A similar instability was observed when the dielectric diaphragm was replaced by a metallic but ungrounded diaphragm. When the metallic diaphragm was grounded, practically no instability developed. Certain qualitative explanations of the phenomena are presented. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 005/ OTH REF: 005

Card

2/2

ACC NR: AP6033412

SOURCE CODE: UR/0057/66/036/010/1779/1786

AUTHOR: Demidenko, I.I.; Lomino, N.S.; Padalka, V.G.

ORG: none

TITLE: Characteristics of the interaction of a fast plasma with a transverse magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 10, 1966, 1779-1786

TOPIC TAGS: plasma gun, plasma injection, plasma magnetic field, transverse magnetic field, magnetic trap

ABSTRACT: The authors investigated the entrapment of hydrogen plasma bursts from a 17.5 cm long 7.2 cm diameter coaxial plasma gun powered by the 15 kV discharge of a 15 microfarad capacitor by a transverse magnetic field of strength up to 0.2 tesla. The plasmas travelled from the gun to the transverse magnetic field through an 80 cm long tube of glass or metal. The behavior of the plasmas was observed with both electric and magnetic probes and with 4 mm microwaves, and the composition of the plasma that traversed the magnetic field was recorded with a parabola type (Thompson) mass spectrometer. The plasmas from the coaxial gun had two components: a fast component with a velocity of 7×10^5 m/sec and a relatively low density, and a slow component with a velocity of 1.5×10^5 m/sec and a density exceeding 7×10^{13} cm⁻³. The fast component was entrapped by very weak fields (0.01-0.02 tesla), and it is

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UDC: 533.9

ACC NR: AP6033412

concluded that it would be very difficult to inject these fast plasmas transversely into a magnetic trap because they would become entrapped in the fringe field. When the drift tube was of glass the slow plasmas were also rather rapidly entrapped and did not reach the region of strong magnetic field. When the drift tube was of metal, however, the slow plasma component tended to penetrate the transverse magnetic field and could be entrapped in a region of high field strength. The difference between the behaviors of the plasmas in the glass and metal drift tubes is ascribed to short circuiting of the plasma polarization by the walls of the metal drift tube and consequent deceleration of the plasma. It is concluded that for transverse injection of plasma into a magnetic trap one should select an injector that produces slow dense plasmas. The authors thank K.D.Sinel'nikov and B.G.Safronov for valuable discussions. Orig.art. has: 9 figures.

SUB CODE: 20

SUBM DATE: 05Jul65

ORIG.REF: 009

OTH REF: 002

Card

2/2

ACC. NR: AP6033417

SOURCE CODE: UR/0057/66/036/010/1819/1825

AUTHOR: Demidenko, I.I.; Lomino, N.S.; Padalka, V.G.; Rutkevich, B.N.; Sinel'nikov, K.D.

ORG: none

TITLE: Investigation of the motion of a plasma burst in a nonuniform transverse magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 10, 1966, 1819-1825

TOPIC TAGS: hydrogen plasma, plasma magnetic field, transverse magnetic field, nonhomogeneous magnetic field, plasma injection

ABSTRACT: This paper begins with a brief theoretical discussion in the drift approximation of the adiabatic motion of a plasma in a nonuniform transverse magnetic field. It is shown that the plasma is decelerated on entering a region of high transverse magnetic field strength and accelerated on leaving such a region, owing to the transformation of kinetic energy of forward motion into kinetic energy of rotation and vice versa. If the magnetic field becomes strong enough the plasma can be reflected. The authors tested their theoretical conclusions by firing plasmas from a conical plasma gun through an 80 cm long 7 cm diameter drift tube across a transverse magnetic field of up to 0.2T produced by a solenoid in a 12 cm diameter transverse tube. The magnetic field gradient was adjusted with the aid of soft iron shields within the plasma drift tube; these shields were covered with glass tubes to prevent the plasma from coming

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UDC: 533.9

ACC NR: AP6033417

in contact with them. The plasma gun was powered by the 15 kV discharge of a 15 microfarad capacitor and produced plasmas containing 70% hydrogen ions with densities of about 10^{14} cm^{-3} and velocities of about $2.5 \times 10^4 \text{ m/sec}$. The theoretical linear relation between the square of the plasma velocity and the strength of the transverse magnetic field was confirmed by the experiments. Plasmas with densities as low as 10^{12} cm^{-3} were obtained with the aid of an iris mounted in the drift tube. These plasmas did not conform to the adiabatic theory, but were to a considerable extent entrapped in the transverse magnetic field, particularly when the field gradient was high. It is concluded that low density hydrogen plasmas can be entrapped by a transverse magnetic field of considerable strength. The authors thank B.G.Safronov and N.A.Khizhnyak for valuable discussions. Orig. art. has: 10 formulas and 6 figures.

SUB CODE: 20 SUBM DATE: 11oct65 ORIG.REF: 006 OTH REF: 004

Card 2/2

DEMIDOV, I.N.; BONDAREV, E.

High-speed heads equipped with cutters having hard alloy
bits used without regrinding. Avt. prom. 29 no.8:39
Ag '63. (MIRA 16:11)

1. Minskiy avtomobil'nyy zavod.

DEMIDENKO, I. Ya.

37464. Kartina Dna Glaz Pri Septicheskikh Protessakh i Klorugicheskoy
Sepsise U Lo Kadey i Eye Znachenie V. Klinicheskoy Pamiotke. Uchen.
Zapiski-Viteb. Vet. In-ta, t. IX, 1949, s. 10-32. -- Biologr: 22 Nazv.

SO: Letopis' Zhurnal'nykh Staley, Vol. 7, 1949

DESIDENKO, I. Ya.

37465. Ob U Anomaliyakh Kartiny Dna Glas Zhiivotnykh i Ikh ^zro^zskho^zndenii.
Uchen. Zapiski Viteb. Vet. In-ta, t. IX, 1949, s. 33-38.-- Bibliogr: 10 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

DEMIDENKO, K.D.

Effect of exposure to sunrays and laundering on the creasing characteristics of half-woolen dress fabrics. Izv. vys. ucheb. zav.; tekhn. tekh. prom. no.6:23-27 '65.

(MIRA 19:1)

1. Belorusskiy institut narodnogo khozyaystva imeni V.V. Kuybysheva. Submitted July 3, 1965.

DEMIDENKO, I.

Training of sewers on a conveyor. Prof.-tekh.obr. 22 no.4:11-12
Ap '65. (MIRA 18:5)

1. Starshiy master professional'no-tekhnicheskogo uchilishcha
No.28 g. Novosibirsk.

DEMICHEVA, K.N., nauchnyy sotrudnik

Use of cortisone in partial penetrating corneal transplantation.
Oft. zhur. 16 no.2:86-92 '61. (MIRA 14:3)

1. Iz Ukrainskogo nauchno-issledovatel'skogo ekperimental'nogo
instituta glaznykh bolezney i tkanevoy terapii imeni akademika
V.P.Filatova (direktor - prof. N.A.Puchkovskaya).
(CORNEA-TRANSPLANTATION) (CORTISONE)

DEMIDENKO, N.I.

Fourth Conference on Plant Phylogeny at the All-Union Botanical Society. Bot.zhur. 42 no.10:1565-1570 0 '57. (MIRA 10:10)

1. Botanicheskiy institut im. V.L.Komarenko AN SSSR, Leningrad.
(Phylogeny (Botany))

DEMIDENKO, M.N.

Valuable guide; based on materials submitted to the editors.
Veterinariia 39 no.1:90-92. Ja '62. (MIRA 15:2)
(Veterinary hygiene)

L 65069-65 EWA(1)-2/EWA(j)/ENT(1)/T JK

ACCESSION NR: AR5018565

UR/0299/65/000/011/B046/B046
615.779.9:576.8

SOURCE: Ref. zh. Biologiya, /Svodnyy tom, Abs. 14B342

AUTHOR: Ponizaykina, M. A.; Demidenko, M. Ye.

TITLE: Sensitivity of dysentery bacilli to various antibiotics

CITED SOURCE: Sb. nauchn. tr. Kafedry fak. Khirurgii AGMI i vrachey
Kazakhsk. zh. d., vyp. 2, 1964, 253-255

TOPIC TAGS: antibiotic, bacteria, streptomycin, aureomycin,
chloromycetin, bacterial disease, intestinal disease

TRANSLATION: A study was made of 226 strains of dysentery bacilli, of which 137 were isolated from patients with a severe form of dysentery, 19 from patients with an aggravated chronic form, and 70 from bacilli carriers. The strains were isolated in the years 1959-1960. The sensitivity of the cultures to antibiotics was determined by a disk method. The dysentery cultures isolated from patients and bacilli carriers were most sensitive to chloromycetin, then to aureomycin, synthomycin, and finally, to streptomycin. The most

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ACCESSION NR: AR5018565

sensitive were S. sonnei bacilli and the most resistant were the S. flexneri type O bacilli. Resistance of the dysentery bacilli increased sharply with antibiotic therapy. I. Buyanovskaya.

SUB CODE: LS

ENCL: 00

Card 2/2

43123

S/181/62/004/011/023/049
B125/B186

24.7800

AUTHORS: Votinov, M. P., and Demidenko, N. I.

TITLE: Peculiarities of electron paramagnetic resonance spectra in titanium-containing ferroelectrics

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3211 - 3214

TEXT: It is shown that ferroelectrics of the types BaTiO_3 , BaTiO_3 (89.9%) + $(\text{ZrO}_2, \text{MgO})$, and SrTiO_3 contain paramagnetic particles with various spin-lattice relaxation times whose existence is said to depend on the composition of the original material and the annealing conditions. The effect of such particles on dielectric properties was studied by V. V. Antuf'yev et al. (FTT, 3, 286, 1961; Nauchno-tekhnicheskiy informatsionnyy byulleten' LPI im. M. I. Kalinina 1 (Radiofizika), 100, 1961). In the present paper, measurements of e.p.r. absorption spectra at various temperatures are reported. The width of the absorption lines of such paramagnetic particles incorporated in the crystalline phase of ferroelectrics may be used as indicator for structural transformations, i. e. for transitions from the ferroelectric to the nonferroelectric state. At -195°C ,
Card 1/3

Peculiarities of electron...

S/181/62/004/011/023/049
B125/B186

the spectrum of BaTiO_3 consisted of two superimposed components: A which is assumed to be Ti^{3+} and B which might be an impurity ion. In the temperature range from -100°C to $+280^\circ\text{C}$ only a single symmetrical line of B could be observed. At 300°C , and even above 400°C , six weak narrow lines superimposed on the line B could be resolved. The e.p.r. spectrum of $\text{BaTiO}_3 + (\text{ZrO}_2, \text{MgO})$ showed a third component C ($g = 1.951$) at a temperature below -50°C . Its A and B lines were less distinct. Above 430°C also in this case six narrow superimposed lines could be resolved. The phase-sensitive component B could be observed from -195°C to 450°C . The e.p.r. spectrum of SrTiO_3 showed 7 lines at -195°C of varying resolutions. Above -60°C only the lines of the components B and D were left. The low-intensity lines $\alpha, \beta, \gamma, \delta$, symmetrically arranged with respect to the center of the spectrum, obviously represent the hyperfine structure of the spectrum of a particle with a nuclear spin of $3/2$, showing very strong spin-lattice interaction. It is assumed that each of the observed components corresponds with an individual particle. The particle B is obviously incorporated in the SrTiO_3 crystal lattice while the particle D is obviously not contained in the strontium compound. The particles A and B were observed in all three ferroelectrics. There are 2 figures.

Card 2/3

Peculiarities of electron...

S/181/62/004/011/023/049
B125/B186

ASSOCIATION: Leningradskiy politekhnicheskii institut im. M. I. Kalinina
(Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: June 22, 1962

X

Card 3/3

43131
S/181/62/004/011/033/049
B108/B102

24,7900

AUTHORS:

Votinov, M. P., and Demidenko, N. I.

TITLE:

Change with temperature of the width of the spectrum of electron paramagnetic resonance in titanium - oxygen systems

PERIODICAL:

Fizika tverdogo tela, v. 4, no. 11, 1962, 3277 - 3278

TEXT: The temperature dependence of electron paramagnetic resonance of the Ti^{3+} ions in TiO_x ($1.5 \leq x \leq 2.0$) was recorded down to nitrogen temperature (77°K). Similar tests have been made before (V. V. Antuf'yev et al. FTT, 4, 1496, 1962). The spectra were studied on a highly sensitive spectrometer with an h.f.-modulated magnetic field and with differential recording of the absorption lines. The width of the spectra at 77°K varied between 40 and 70 oersted for different specimens. The temperature dependence of the line width is shown by curves in the figure, each numbered to indicate the value of x . The high temperature at which electron paramagnetic resonance of $TiO_{1.874}$ ceases to be observable (500°C) is associated with the fact that Ti^{3+} is in a low-symmetry crystal lattice

Card 1/3

VOTINOV, V.P.; DEMIDENKO, N.I.

Characteristics of the spectra of electron paramagnetic
resonance in ferroelectric ceramics containing titanium.
Fiz. tver. tela 4 no.11:3211-3214 N '62. (MIRA 15:12)

1. Leningradskiy politekhnicheskii institut imeni
M.I. Kalinina.

(Ferroelectric substances)

(Titanium)

(Paramagnetic resonance and relaxation)

VOTINOV, M.P.; DEMIDENKO, N.I.

Temperature variation in the width of the spectrum of
electron paramagnetic resonance in the system titanium - oxygen
 TiO_x ($x = 1.5 - 2.0$). Fiz. tver. tela 4 no.11:3277-3278
N 162. (MIRA 15:12)

1. Leningradskiy politekhnicheskiy institut imeni
M.I. Kalinina.

(Paramagnetic resonance and relaxation)

(Excitons)

(Titanium oxide crystals)

DEMIDENKO, N. M.

"Data on the Hygienic Characteristics of Industrial Dusts of Mixed Composition (Experimental Investigation)." Cand Med Sci, Moscow Medical Inst, Moscow, 1953. (RZhKhim, No 23, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: Sum. No. 556, 24 Jun 55

DEMIDENKO, N.M.

USSR

1058. INFLUENCE OF MIXED DUSTS ON LUNGS, Demidenko, N.M. (Gigiena
Sanit. (Hyg. & Sanit., Moscow), 1954, vol. 11, 25-28). Describes four
series of experiments on rats by intratracheal injection of quartz with
limestone, coal, hematite and flucroper (25 mg per rat). The quartz-
limestone mixture gave results similar to those seen in experimental
silicosis. With the quartz-coal dust mixture, the effect on the lungs
was much less; apparently the coal dust reduced the pathogenic action of
sulphur dioxide. The pathogenic action of quartz-hematite was similar
to that of quartz-coal dust. The quartz-flucroper mixture caused changes
of a silicotic nature and although it cannot be stated definitely that it
increased the action of quartz, it did not decrease it. S.H.R.

62

DEMIDENKO, N.M., kandidat meditsinskikh nauk

Hygienic characteristics of industrial dust of heterogeneous
particles. Bor'ba s sil. 2:333-342 '55. (MIRA 9:5)

1. Moskovskiy meditsinskiy institut.
(LUNGS--DUST DISEASES) ;(DUST)

DEMIDENKO, N. M. ; LYUBETSKIY, Kh. A.; HASYROVA, V. Ye.; SMETANIN, N. I.;
SHRAYBET, L. B.; ARNOL'DI, I. A.; AKHMEROVA, A. A.; VENGERSAKYA, Kh. Ya.

"Problems of toxicology of certain new insectofungicides used
in cotton growing."

report submitted at the 13th All-Union Congress of Hygienists,
Epidemiologists and Infectionists, 1959.

BABADZHANOV, S.N.; DEMIDENKO, N.M.

Session of the Uzbek Republic Scientific Society of Hygienists in
1959. Med. zhur. Uzb. no.6:73-75 Je '60. (MIRA 15:2)
(UZBEKISTAN PUBLIC HEALTH)

DEMIDENKO, N.M.; PLAKHOVA, L.G.; TEPLYAKOVA, Z.M.

Working conditions and preventive measures during the application
of new defoliant and desiccants to cotton. Med. zhur. Uzb.
no. 9:15-18 S '60. (MIRA 13:10)

1. Iz kafedr gigiyeny truda (zav. - dotsent N.I. Smetanin) i
obshchey khimii (zav. - dotsent E.Kh. Timbekov) Tashkentskogo
gosudarstvennogo meditsinskogo instituta.

(AGRICULTURAL CHEMICALS—TOXICOLOGY)
(COTTON GROWING—HYGIENIC ASPECTS)

BABADZHANOV, S.N.; DEMIDENKO, N.M.

Meetings of the Uzbek Republican Hygienic Society during 1960.
Med. zhur. Uzb. no.7:79-80 J1 '61. (MIRA 15:1)
(UZBEKISTAN PUBLIC HEALTH SOCIETIES)

DEMIDENKO, N.M., dotsent

Industrial hygiene in cotton defoliation with calcium
chloride chlorate. Med. zhur. Uzb. no.7:41-43 J1 '63.

(MIRA 17:2)

1. Iz kafedry gigiyeny truda (zav. - dotsent N.I. Smetanin)
Tashkentskogo meditsinskogo instituta.

DEMIDENKO, N. S.

ALESHIN, B.V.; DEMIDENKO, N. S.

Effect of 6-methylthiouracil on cells of the anterior pituitary.
Arkhn anat., Moskva 29 no. 3:82-95 May-June 1952. (CLML 22:5)

1. Of the Department of Histophysiology (Head -- Prof. B. V. Aleshin).
Ukrainian Institute of Experimental Endocrinology (Director -- Prof.
Z. M. Dinershteyn).

ALESKIN, B.V.; DEMIDENKO, N.S.

Effect of 6-methylthiouracil on the thyreotropic function of the pituitary. Arkh.anat.gist.i embr. 30 no.5:31-42 S-O '53.

(MLRA 6:12)

1. Iz otdela gistofiziologii (zaveduyushchiy - professor B.V.Aleskin) Ukrainskogo instituta eksperimental'noy endokrinologii (direktor - professor Z.M.Dinershteyn).

(Pituitary body) (Thiouracil)

DEMIDENKO, N. S.

"Conditions and Factors Which Influence the Proliferation of Thyroid Epithelium (The Importance of the Thyroid Hormone in the Proliferation of the Thyroid Epithelium and in Goiter Pathogenesis)." Cand Biol Sci, Khar'kov State U, Khar'kov, 1954. (RZhBiol, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

Country : USSR
 Category= : Human and Animal Physiology, Physical Factors T
 Abs. Jour. : Ref Zhur Biol, No. 2, 1959, No. 8574
 Author : Aleashin, B.V.; Demidenko N.S.
 Institut. : --
 Title : The Importance of the State of the Brain in the Up-take
 of Radioactive Iodine by the Thyroid Gland.
 Orig. Pub. : Med. radiologiya, 1957, 2, No. 3, 77--82
 Abstract : Silver discs measuring 8X4X0.2 mm were applied
 symmetrically to the central zones of the cerebral
 cortex in rabbits. For one month the animals were
 injected subcutaneously with I¹³¹ having an activity
 of one microcurie; periodic determinations of the act-
 ivity of the thyroid gland were made every three days.
 Among males the intensity of I¹³¹ up-take by the gland
 increased considerably and was characterized by indivi-
 dual curves of a single type. Among females the effect
 was considerably less pronounced and great individual
 differences were noted in the individual curves. When
 6-methylthiouracil (50 mg/kg) was administered internally
 1/4

Card: 1/4

COUNTRY :USSR
 Category= :Human and Animal Physiology, Physical Factors T
 Abs. Jour. :Ref Zhur Biol, No. 2, 1959, No. 8574
 Author :
 Institut. :
 Title :
 Orig. Pub. :

Abstract :to the precentral zones. The combination of
 ganglionectomy and injection of methylthiouracil
 had an effect on up-take dynamics which was
 approximately the same as that of injecting
 methylthiouracil when discs were applied to the
 precentral zones. Prolonged stimulation of the
 superior cervical ganglia by applying silver
 rings led to a long, slow rise in the up-take
 curve, while such stimulation in combination
 with the injection of methylthiouracil led to
 a sudden and lasting elevation of the curve.

Card: 3/4

ALESHIN, B.V.; DEMIDENKO, N.S.

Reaction of the thyroid gland to 6-methylthiouracil as compared
with its reaction to the thyrotropic hormone. Sbor. nauch. trud.
Ukr. nauch.-issl. inst. eksper. endok. 15:140-164 '59.

(MIRA 14:11)

(THYROID GLAND) (URACIL) (PITUITARY BODY)

BINIASHVILI, R.M.; ~~DEMI~~DUENKO, N.S.

High-quality portable lamps for miners. Bezop.truda v prom. 4
no.11:36 N '60. (MIRA 13:11)

1. Nachal'nik ventilyatsii shakhty im. Stalina tresta Voroshilo-
vugol' (for Biniashvili).
(Electric lamps, Portable)

DEMIDENKO, N. S., Cand Bio Sci -- "Effect of certain reactions ^{gas} applied to the nervous system ^{upon} ^{process of} the regeneration ^{intel} of the thyroid parenchyma. (Experim ^{study} ~~stud~~).

Khar'kov, 1961. (Min of Higher and Sec SpecEd UkSSR.

Khar'kov Order of Labor Red Banner State U im A. M. Gor'kiy)
(KL, 8-61, 236)

-143-
- 142 -

ALESHIN, B. V.; DEMIDENKO, N. S.; MAMINA, V. V.; SIDORENKO, E. V.

Significance of higher parts of the central nervous system in the pathogenesis of goiter disease. Aktiv. nerv. sup. 3 no.3:289-304 '61.

1. Ukrainskiy institut eksperimental'noy endokrinologii i Khar'kovskiy meditsinskiy institut, Khar'kov, SSSR.

(CENTRAL NERVOUS SYSTEM physiol)
(GOITER etiol)

DEMIDENKO, N.S.

Reaction of the adrenal cortex and lymphoid organs to extreme stimulation under conditions of cerebral cortex excitation.

Trudy Ukr.nauch.-issl.inst.eksper.endok. 18:215-227 '61.

(MIRA 16:1)

1. Iz otdela gistofiziologii Ukrainского instituta eksperimental'noy endokrinologii.

(ADRENAL CORTEX) (CEREBRAL CORTEX) (LYMPHOID TISSUE)

DEMIDENKO, N.S.

Kit for the blaster. Bezop.truda v prom. 6 no.4:33 Ap '62.
(MIRA 15:5)
(Blasting--Equipment and supplies)

KRUPSKIY, M.K. [Krupa'kyi, M.K.], kand.sel'skokhozyaystvennykh nauk;
DEMIDENKO, O.Ya. [~~Demid'yenko, O.Ya.~~], starshiy nauchnyy sotrudnik
(Khar'kov)

Salinization of irrigation canals. Nauka i zhyttia 8 no.2:
32-33 F '58. (MIRA 13:5)
(Irrigation canals and flumes)

DEMIDENKO, P. [Demydenko, P.]

We are constructing buildings for collective farmers. Sil'.
bud. 7 no.12:11 D '57. (MIRA 13:5)

1. Predsedatel' kolkhoza imeni Stalina Meshevskogo rayona,
Dnepropetrovskoy oblasti.
(Meshevaya District--Farmhouses)

DEMIDENKO, P., polkovnik, voyenny letchik pervogo klassa

The leading squadron increases its achievements. Av. 1 kosm.
no.2:14-17 F '66. (MIRA 19:1)

DEMIDENKO, P. M.

USSR/Cultivated Plants - Grains

M-4

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1542

Author : P.M. Demidenko

Inst : Not Given

Title : Methods and Norms of Sowing Buckwheat

Orig Pub : Tr. Dnepropetr. s.kh.. in-t, 1956, 6, 55-60

Abstract : In the steppe zone of the Ukrainian SSR, sowing in wide furrows (the interstitial width being 45 cm with a sowing norm of 45 kilograms per hectare) produced the highest yield of buckwheat (13.2 centners per hectare). A sharp decrease of productivity (6.05 centners per hectare) was shown when the sowing norm was 90 kb/h with uniform-row sowing. The wide furrow sowing greatly improves the quality of the buckwheat, raising the absolute weight of its grain and reducing its scaliness.

Card : 1/1

DEMIDENKO, P., ^{M.} kand. sel'skokhozyaystvennykh nauk

Our experience in growing mallows. Nauka i pered. op. v
sel'khoz. 8 no.9:19 S '58. (MIRA 11:10)

1. Predsedatel' kolkhoza imeni Stalina, Mezhevskogo rayona,
Dnepropetrovskoy oblasti.
(Mallow)

DEMIDENKO, P.M.

For high sunflower yields. Zemledelie 7 no.3:75-76 Mr '59, (MIRA 12:4)

1. Predsedatel' kolkhoza "Rossiya," Mezhevskogo rayona, Dnepropetro-
vskoy oblasti.

(Sunflowers)

Density and molecular volume in solution.

I. Method of density measurement and the molecular volume of dissolved carbamides.
O. K. SACHS, A. G. DUBINSKO, and A. E. BRODESKI
(Acta Physicochim. U.N.S.S.R., 1937, 8, 297-303).—A differential pycnometric method is described which permits d to be measured to $\pm 1 \times 10^{-6}$. d_{25}^{25} has been determined for KOI and for CO(NH₂)₂ solutions.

The difference in variation of mol. vol. with concn. for these two compounds is in accord with theory.
J. W. S.

100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 1064 1065 1066 1067 1068 1069 1070 1071 1072 1073 1074 1075 1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095 1096 1097 1098

1ST AND 2ND COLUMNS										3RD AND 4TH COLUMNS									
PROCESSES AND PROPERTIES INDEX																			
C22										2									
<p>Isotopic composition of atmospheric precipitations. S. G. Dzhanik, <i>Acta Physicochem. U. R. S. S. 13</i>, 305-311 (1957) (in Russian). — The density deviations Δd, and $\Delta \rho$ of various types, dew, fog, to enrichment in H^1 and O^{18} with respect to the normal river water of the Dnieper were detd. Snow and hoar frost have low D contents, Δd = -2.0 and -2.5; O^{18} is normal; atm. moisture, as detd. by absorption on $CaCl_2$ and distn., and grain snow show nearly normal compen. rain tends slightly toward high O^{18} values, Δd, up to +1.5. None of the explanations hitherto given for differences in isotopic compen. can explain these data. F. H. Rathmann</p> <p style="text-align: right;">No. 2</p> <p style="text-align: center;"><i>Inst. Physical Chemistry im L.V. Pisarzhevskiy, Acad. Sci. UkSSR</i></p>																			
AIR-51.1 METALLURGICAL LITERATURE CLASSIFICATION																			
SECTION 1										SECTION 2									
SUBSECTION 1										SUBSECTION 2									
SUBSUBSECTION 1										SUBSUBSECTION 2									

DEMIDENKO, S. G.

Division of the Chemistry of Isotopes, Institute of Physical Chemistry
of the Academy of Sciences Ukrainian SSR, Dnepropetrovsk, (-1939-)

"The Isotopic Composition of Precipitation."

Zhur. Fiz. Khim., Vol. 14, No. 3, 1940

DEMIDENKO, S. G.

PA 4/49T20

USSR/Chemistry - Analysis, Titration . Apr 48
Chemistry - Apparatus, For Analytical Studies

"Construction of a Semimicro Gas Analyzer," S. G. .
Demidenko, B. A. Geller, Ukrainian Physicochem Inst,
1 p

"Zavod Lab" Vol XIV, No 4 p. 501

Diagram shows absorption-type apparatus for volumetric
analysis. Volume of test sample is 1 - 2 cc. Due to
large surface and small volume, absorption proceeds
fairly rapidly, e.g., oxygen from air by pyrogallol
takes 4-5 minutes, accuracy being $\pm 0.2\%$.

4/49T20

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1930. Rapid mass-spectrometric micro-method of
isotope analysis of oxygen in water. A. I. Buz'skii,
S. G. Demidenko, L. L. Svirzhskii and V. R. Leche-
vich. (L. V. Svirzhskii) *Izv. Akad. Nauk. SSSR, Khim.*
1930, 11, 269-272. A mass-spectrometric method for
determining the isotope composition of oxygen in
water with a 10-mg sample is described. G. S. Surra

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5(4)

AUTHORS: Strizhak, L. L., Demidenko, S. G., SOV/20-124-5-36/62
Brodskiy, A. I., Corresponding Member, AS USSR

TITLE: The Isotopic Exchange of Nitrogen Between Aminocompounds and Liquid Ammonia (Izotopnyy obmen azota mezhdru aminosoyedineni- yami i zhidkim ammiakom)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 1089-1092 (USSR)

ABSTRACT: The present paper contains a report about new results obtained by a closer investigation of the kinetics of exchange and its oxygen catalysis. These new data fully agree with the exchange mechanism already previously assumed. The experiments were carried out in thick-walled ampoules made from molybdenum glass and having an inner diameter of 2-3 mm. Experiments are described in short. A table shows the results obtained for acetamine and benzamine. A further table and 2 diagrams show (though less accurately) the results obtained for other substances. Short reference is made to measurements previously carried out. According to exact measurements, liquid ammonia exchanges no nitrogen with the nitro group, with the nitrogen of the pyridine ring and (which is the most essential fact in

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The Isotopic Exchange of Nitrogen Between Amino-compounds and Liquid Ammonia

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the present case) with the amino group if it is immediately connected with the carbon of the aromatic nucleus or alkyl. Exchange in the amino group takes place during the exchange of highly negative substituents (such as the nitro- or sulfo-groups) into the nucleus. Several details are mentioned. A relatively rapid exchange occurs in substances in which the amino group is immediately connected with the highly polarized carbon of the carbonyl groups or with groups analogous to the latter. Exchange is considerably accelerated by the presence of an ammonium ion. All characteristic features of nitrogen exchange in amino-compounds investigated in this paper agree fully with the bimolecular mechanism (SN2) of the nucleophile substitution of the amino group of the substance to the amino-group of ammonia with transfer of the proton from the last-mentioned group to the amino-group to be split off. There are 2 figures, 2 tables, and 5 references, 3 of which are Soviet.

Card 2/3

The Isotopic Exchange of Nitrogen Between Amino-
compounds and Liquid Ammonia

SOV/20-124-5-36/62

ASSOCIATION: Institut fizicheskoy khimii im. L. V. Pisarzhevskogo Akademii
nauk USSR (Institute for Physical Chemistry imeni L. V.
Pisarzhevskiy of the Academy of Sciences, UkrSSR)

SUBMITTED: November 3, 1958

Card 3/3

VETSHTeyN, V.Ye.; DEMIDENKO, S.G.; LECHEKHLEB, V.R.

Mass-spectrometric ion source for isotopic analysis of micro-quantities of lead. Prib. i tekhn. eksp. 6 no.2:130-131
Mr-Ap '61. (MIRA 14:9)

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(Ion sources) (Lead--Analysis)

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in Science Prof.S.N.Davidenkov, Active Member of the Academy of
Medical Sciences USSR) and of the Department of Physiotherapy
(Head--Prof.N.W.Mishchuk), Leningrad Institute for the Advanced
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1. Iz Leningradskogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni V.M. Bekhtereva (rukovoditel' nevrologicheskogo otdela professor I.Ya.Razdol'skiy).
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